

Use Attainability Analysis

for

WBID 0384 Keeney Creek

Submitted by  
Tetra Tech, Inc

To  
Missouri Department of Natural Resources  
Water Protection Program

RECEIVED

APR 06 2005

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet A - Water Body Identification**

WATER PROTECTION PROGRAM

Water Body Name: (from USGS 7.5' quad) <u>KEENEY CREEK: 148-153</u>
8-digit HUC: <u>10300101</u>
Missouri WBID #: <u>0384</u>
County: <u>RAV</u>
Upstream Legal Description:
Downstream Legal Description:
Upstream Coordinates: (UGS 84, ddd.ddddd) <u>39.22173 - 094.10968 Acc: 20 ft.</u>
Downstream Coordinates: (UGS 84, ddd.ddddd) <u>39.18757 - 094.12560 Acc: 41 ft.</u>
Discharger Facility Name(s): <u>ORRICK LAGOON</u>
Discharger Permit Number(s): <u>MD-6022918</u>
Number of Sites Evaluated: <u>6</u>
Name of Surveyor and Telephone Number: <u>ADAM RUTTIG, 410-356-8193</u>
Organization: <u>TETRA TECH INC.</u>
Position: <u>ASSOCIATE SCIENTIST</u>

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Adam Ruttig Date: 3/29/05





## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: <u>148</u>	Site Location Description:	
Site GPS Coordinates: <u>39.18360/-94.12830</u>	<u>OFF-Road, AS IT TURNS RIGHT</u>	
Date & Time: <u>3/15/05 / 1200hrs</u>	Facility Name: <u>ORRICK LAKE</u>	
Personnel: <u>AWR AMG</u>	Permit Number:	
Current Weather Conditions: <u>Sunny 40°</u>	Weather Conditions for Past 7 days: <u>Sunny 40°</u>	
Photo Ids: Upstream: <u>1569C 41</u>	Downstream: <u>1568C 40</u>	Other:
<u>1569C</u>	<u>1568C</u>	

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input checked="" type="checkbox"/> Trapping <u>NR</u>	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

\* ASSUMED ACTIVITIES BASED ON ACTIVITIES. NR

\* MANY MUSSEL SHELS FOUND.

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: <u>TRASH</u>				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

dc: Ann Marie Porter      3-15-05

**Stream Morphology:**

**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): 2.9m	Length (ft): 20m	Avg. Depth (ft): 0.09m	Max. Depth (ft): 0.15m
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): 0.15m/s	

**Downstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): 3.3m	Length (ft): 20m	Avg. Depth (ft): 0.08m	Max. Depth (ft): 0.1m
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): 0.22m/s	

**Substrate\*:** (These values should add up to 100%.)

% Cobble	50	% Gravel		% Sand		% Silt	50	% Mud/Clay		% Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

NA
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

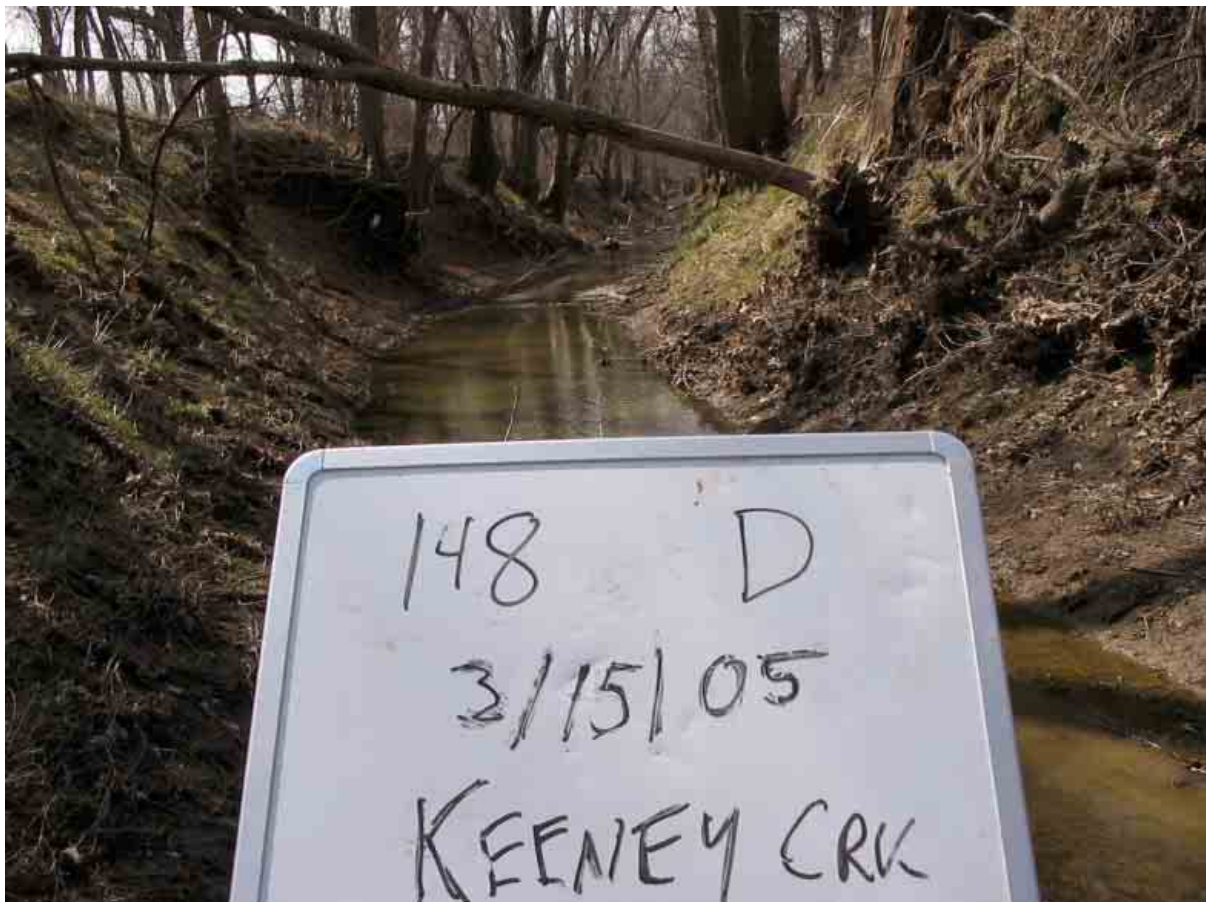
\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Adam Petty Date: 3/15/05

Organization: TE-BET Position: SECRET I.

QC: A. M. Baker 3-15-05



## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 148-REVISE		Site Location Description: END OF W 42 <sup>nd</sup> STREET, TURN RIGHT ONTO UNNAMED ROAD	
Site GPS Coordinates: N 39.18757 W 094.12560		Facility Name: ORBITAL LAGOON	
Date & Time: 03-16-05: 0915		Permit Number:	
Personnel: CHAD BARBOUR; JEREMY ABBOTT		Weather Conditions for Past 7 days:	
Current Weather Conditions: 43°F, SUNNY			
Photo Ids: Upstream: 15710	Downstream: 15705	Other:	

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)  
SHALLOW STREAM SURROUNDED BY AGRICULTURAL FIELDS. NO USES OBSERVED.

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: AGRICULTURE	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

**Stream Morphology:**

Upstream View Physical Dimensions: 0.13, 0.13, 0.21, 0.12, 0.02 m

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>3.9m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.12m</u>	Max. Depth (ft): <u>0.21m</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>4m=30s; 4m=35s; 4m=37s</u>	

Flow = 0.12 m/s

Downstream View Physical Dimensions: 0.11, 0.13, 0.1, 0.02, 0.1 m

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>2.4</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.09m</u>	Max. Depth (ft): <u>0.13m</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>4m=11s; 4m=9; 4m=10s</u>	

Flow = 0.40 m/s

Substrate\*: (These values should add up to 100%.)

% Cobble	<u>15</u>	% Gravel		% Sand	<u>35</u>	% Silt	<u>50</u>	% Mud/Clay		% Bedrock	
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Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

<u>NONE</u>
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Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other: <u>flow ~</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 03-16-05

Organization: TETRA TECH INC. Position: ASSOCIATE SCIENTIST

JTR-03-16-05





# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: <u>149</u>	Site Location Description: <u>WILDERD TRAIL AWAY FROM STREAM</u>
Site GPS Coordinates: <u>39.18546/094.12733</u>	
Date & Time: <u>3/15/05 / 1145 hrs</u>	Facility Name: <u>CREEK LAGOON</u>
Personnel: <u>AUSZ, AMG</u>	Permit Number:
Current Weather Conditions: <u>SUNNY 40'S</u>	Weather Conditions for Past 7 days: <u>SUNNY DAY</u>
Photo Ids: Upstream: <u>1566 on 38</u>	Downstream: <u>1563 on 35</u> Other:

### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input checked="" type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

TRAP FOUND @ JUNE: (SEE PHOTOS) ACTIVITY FROM W/IN PAST WEEK DUE TO ANT  
OF RUST ON TRAP.

### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: <u>TRASH/GLASS</u>	

### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: <u>OLD TRAP FOUND</u>				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

OK - Ann Marie Holtz 3-15-05

Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>3m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.25m</u>	Max. Depth (ft): <u>0.4m</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>0.1m/s</u>		

Downstream View Physical Dimensions: 4, 45, 35, 32, 25

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>3.9m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.34m</u>	Max. Depth (ft): <u>0.45m</u>
<input checked="" type="checkbox"/> Flow	Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>0.01m/s</u>		

Substrate\*: (These values should add up to 100%.)

% Cobble	<u>20</u>	% Gravel		% Sand		% Silt	<u>80</u>	% Mud/Clay		% Bedrock
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Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

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Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input checked="" type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Adam Netting Date: 3/15/05

Organization: TE-DLT Position: JL-E

AC - Marie Hobbs 3-15-05











## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 150		Site Location Description:	
Site GPS Coordinates: 39.19233 / 894.12258		UNDER TRAW BRIDGE, NEAR YELLOW HOUSE	
Date & Time: 3/15/05 / 1040 hrs		Facility Name: ORRISK LAGOON	
Personnel: AVR, AMG		Permit Number:	
Current Weather Conditions: Sunny 40F		Weather Conditions for Past 7 days: Sunny DRY	
Photo Ids: Upstream: 34 or 1562C	Downstream: 32 or 1560C	Other: 33 or 1561 = MOD/ALGAE on rocks	

1561C

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input checked="" type="checkbox"/> Trapping - AVL	<input checked="" type="checkbox"/> Fishing AR	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

ASSUMED ACTIVITIES BASED ON LOCATION AND COUNTRY OF AR

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: TRAW FREQUENTLY 4/1hr	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: TRAW BRIDGE				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

QC = Ann Marie Burke 3-1505

**Stream Morphology:**

**Upstream View Physical Dimensions:** .2, .5, .8, .71, .4

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>4.1m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.52m</u>	Max. Depth (ft): <u>0.82m</u>
<input type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NA Too Slow Estimated (ft <sup>3</sup> /sec):	

**Downstream View Physical Dimensions:** .3, .4, .3, .31, .2

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>6m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.3m</u>	Max. Depth (ft): <u>0.4m</u>
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>0.17 m/s</u>	

**Substrate\*:** (These values should add up to 100%.)

<u>60</u> % Cobble	% Gravel	% Sand	% Silt	<u>40</u> % Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

<u>Moss + ALGAE ON ROCKY (SEE PHOTOS)</u>
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input checked="" type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

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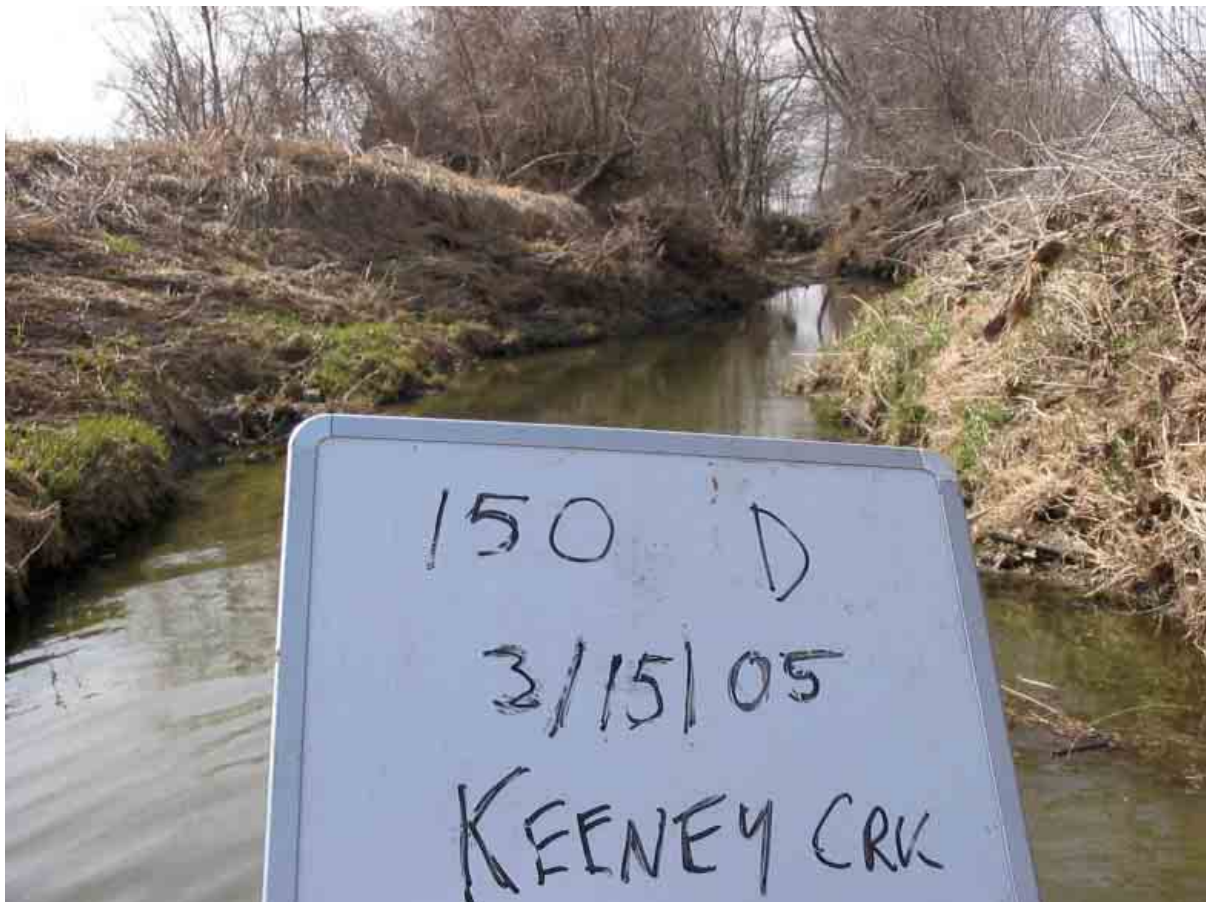
I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Adam Bittly Date: 3/15/05

Organization: TE-BLT Position: SR, I.

Amari Hoke 3/15/05







## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 151	Site Location Description: UPPER 2 CROSSES CREEK, NEAR ABANDONED CARS	
Site GPS Coordinates: 39.19720/-94.11785	Facility Name: CREEK LAGOON	
Date & Time: 3/15/05 / 1005hrs	Permit Number:	
Personnel: AVR, AMG	Weather Conditions for Past 7 days: Sunny Day	
Current Weather Conditions: Sunny, 40°		
Photo Ids: Upstream: 29/1557C	Downstream: 30/1558C	Other: 31/1559C = SPRAY PAINT

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input checked="" type="checkbox"/> Trapping - AR	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input checked="" type="checkbox"/> Other: LOTTERIES

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

SPRAY PAINT ON BRIDGE.

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: SPRAY PAINT ON BRIDGE				

#### Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

QC - Anne Hulse      3-15-05

**Stream Morphology:**

Upstream View Physical Dimensions: .72, .16, .3, .62, .35

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>4.2m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.52m</u> <sup>Amc</sup>	Max. Depth (ft): <u>0.75m</u>
<input type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>5.33</u> <sup>Amc</sup> <u>5 sec</u> <u>4.0m</u>	

Downstream View Physical Dimensions: .1, .1, .05, .12, .1 <sup>Amc 4.17 lbs</sup> <sup>7 sec 4.5m</sup> <sup>4 sec 4.0m</sup>

<input checked="" type="checkbox"/> Riffle	Width (ft): <u>2.6m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.094m</u>	Max. Depth (ft): <u>0.5m</u>
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft): <u>0.5m</u> <sup>Amc</sup>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>0.78</u> <sup>Amc</sup> <u>m/s</u>	

**Substrate\*:** (These values should add up to 100%.)

<u>20</u> % Cobble	% Gravel	% Sand	% Silt	<u>80</u> % Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

NA
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

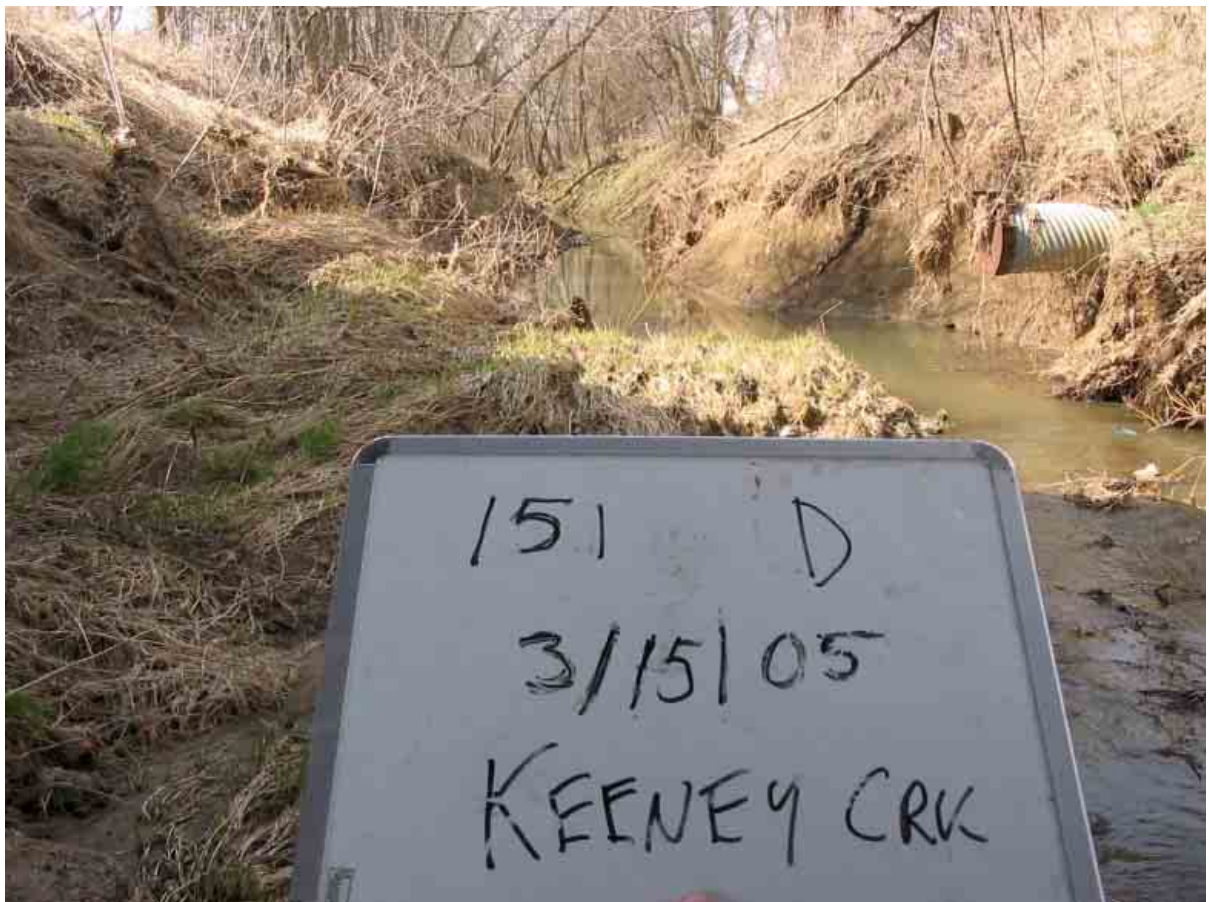
I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Adam Rattig Date: 3/15/05

Organization: Te-Ret Position: Sci. I.

Adam Rattig 3-15-05







## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 152		Site Location Description:	
Site GPS Coordinates: 39.20644/094.10840		SITE IS ≈ 300M DOWNSTREAM OF RESIDENCE	
Date & Time: 3/14/05; 9:30 hrs		Facility Name: CREEK LAGOON	
Personnel: AR		Permit Number:	
Current Weather Conditions: Sunny; 40'S		Weather Conditions for Past 7 days: Sunny 40'S	
Photo Ids: Upstream: 1556C	Downstream: 1555C	Other:	

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input checked="" type="checkbox"/> Trapping AR	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

~~ASSURED ACTIVITY BASED ON CONDITIONS AND LOCATION - AR~~

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

QC: Ar-Mano Heter 3-15-05

**Stream Morphology:**

**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>1.6m</u>	Length (ft): <u>26m</u>	Avg. Depth (ft): <u>0.40m</u>	Max. Depth (ft): <u>0.53m</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>0.16m/s</u>	

**Downstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>1.3m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.16m</u>	Max. Depth (ft): <u>0.25m</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>0.30m/s</u>	

**Substrate\*:** (These values should add up to 100%.)

<u>40</u> % Cobble	% Gravel	% Sand	% Silt	<u>60</u> % Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

<u>NA</u>
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Adam Rethy Date: 3/15/05

Organization: Te-Bis Position: RI. I.

Marie Goeke 3-15-05





# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 153	Site Location Description:	
Site GPS Coordinates: 39.22173 -094.10968 (N20R1)	OK OK 210; MUD BANKS	
Date & Time: 3/5/05	Facility Name: JOEY'S LAGOON	
Personnel: AVR, AMG	Permit Number:	
Current Weather Conditions: Sunny, 46°	Weather Conditions for Past 7 days: Sunny DRY	
Photo Ids: Upstream: 1553C	Downstream: 1554C	Other:

### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input checked="" type="checkbox"/> Trapping AR	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

~~ABANDONED ACTIVITIES BASED ON CAUTIONARY MAP LOCATION AR~~

### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

### Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

QC: Arman Baker 3-15-05

Stream Morphology:

Upstream View Physical Dimensions:

22 sec. 40 sec. 2 sec. 3m 3m

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): 2.2m	Length (ft): 20m	Avg. Depth (ft): 0.24m	Max. Depth (ft): 0.32m
<input type="checkbox"/> Pool	Width (ft): 2.2m	Length (ft): 20m	Avg. Depth (ft): 0.24m	Max. Depth (ft): 0.32m
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): 0.138 m/s	

Downstream View Physical Dimensions:

1, 22, 12, 2, 3

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): 2.6m	Length (ft): 20m	Avg. Depth (ft): 0.19m	Max. Depth (ft): 0.45m
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): 0.11 m/s	

Substrate\*: (These values should add up to 100%.)

22 sec 24 sec 3m 3m

% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
			100		

Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

NA

Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Adam Roth Date: 3/15/05

Organization: Tx-ERT Position: Joe I.

CC: Ar Marie Gocke 3-15-05

NOTE: DEEPEST UNDER BRIDGE (0.8m)

